

Amendment to the Claims:

The listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Previously Presented) A method for determining the voicing of a speech signal segment, comprising the steps of: dividing a speech signal segment into sub-segments, determining a value relating to the voicing of respective speech signal sub-segments, comparing said values with a predetermined threshold, and making a decision on the voicing of the speech segment based on the number of the values on one side of the threshold and with emphasis on at least one last sub-segment of the segment.

2. (Original) A method of claim 1, wherein said step of making a decision is based on whether the value relating to the voicing of the last sub-segment is on the one side of the threshold.

3. (Original) A method of claim 1, wherein said step of making a decision is based on whether the values relating to the voicing of last K_r sub-segments are on the one side of the threshold.

4. (Previously Presented) A method of claim 1, wherein said step of making a decision is based on whether the values relating to the voicing of substantially half of the sub-segments of the speech signal segment are on the one side of the threshold.

5. (Previously Presented) A method of claim 1, wherein said value related to voicing of respective speech signal sub-segments comprises an autocorrelation value.

6. (Previously Presented) A method of claim 5, wherein a pitch period is determined based on said autocorrelation value.

CL 7. (Previously Presented) A method of claim 1, wherein the determining the voicing of a speech signal segment comprises a voiced/unvoiced decision.

8. (Previously Presented) A device for determining the voicing of a speech signal segment, comprising:

means for dividing a speech signal segment into subsegments;

means for determining a value relating to the voicing of respective speech signal sub-segments;

means for comparing said values with a predetermined threshold; and

means for making a decision on the voicing of the speech segment based on the number of the values falling on one side of the threshold and with emphasis on at least one last subsegment of the segment.

9. (Previously Presented) A device of claim 8, wherein said means for making a decision comprises means for determining if the value of the last sub-segment is on the one side of the threshold.

10. (Original) A device of claim 8, wherein said means for making decision comprises means for determining if the values of last K_v sub-segments are on the one side of the threshold.

11. (Previously Presented) A device of claim 8, wherein said means for making a decision comprises means for determining whether the values relating to the voicing of substantially half of the sub-segments the speech signal segment are on the one side of the threshold.

12. (Original) A device of claim 8, wherein the said means for determining a value relating to the voicing of respective speech signal sub-segments comprises means for determining the autocorrelation value.

13. (Previously Presented) A device of claim 9, wherein said means for making a decision comprises:

means for determining whether the values relating to the voicing of substantially half of the sub-segments the speech signal segment are on the one side of the threshold.

14. (Previously Presented) A device of claim 10, wherein said means for making a decision comprises:

means for determining whether the values relating to the voicing of substantially half of the sub-segments the speech signal segment are on the one side of the threshold.

C/ 15. (New) A method for determining the voicing of a speech signal segment, comprising the steps of: dividing a speech signal segment into sub-segments, determining a value relating to the voicing of respective speech signal subsegments, comparing said values with a predetermined threshold, and classifying the speech segment as voiced if a certain number of the values corresponding to at least one sub-segment of the segment is on one side of the threshold.

16. (New) A method of claim 15, wherein said step of making a decision is based on whether the value relating to the voicing of the last sub-segment is on the one side of the threshold.


17. (New) A method of claim 15, wherein said step of making a decision is based on whether the values relating to the voicing of last K_L sub-segments are on the one side of the threshold.

18. (New) A method of claim 15, wherein said step of making a decision is based on whether the values relating to the voicing of substantially half of the sub-segments of the speech signal segment are on the one side of the threshold.

19. (New) A method of claim 15, wherein said value related to voicing of respective speech signal sub-segments comprises an autocorrelation value.

20. (New) A method of claim 19, wherein a pitch period is determined based on said autocorrelation value.

21. (New) A method of claim 15, wherein the determining the voicing of a speech signal segment comprises a voiced/unvoiced decision.

 22. (New) A device for determining the voicing of a speech signal segment, comprising:

means for dividing a speech signal segment into subsegments;

means for determining a value relating to the voicing of respective speech signal sub-segments;

means for comparing said values with a predetermined threshold; and

means for classifying the speech segment as voiced if a certain number of the values corresponding to at least one sub-segment of the segment is on one side of the threshold.

23. (New) A device of claim 22, wherein said means for making a decision comprises means for determining if the value of the last sub-segment is on the one side of the threshold.

24. (New) A device of claim 22 wherein said means for making decision comprises means for determining if the values of last K_{tr} sub-segments are on the one side of the threshold.

25. (New) A device of claim 22, wherein said means for making a decision comprises means for determining whether the values relating to the voicing of substantially half of the sub-segments the speech signal segment are on the one side of the threshold.

Cl 26. (New) A device of claim 22, wherein the said means for determining a value relating to the voicing of respective speech signal sub-segments comprises means for determining the autocorrelation value.

27. (New) A device of claim 22, wherein said means for making a decision comprises:

means for determining whether the values relating to the voicing of substantially half of the sub-segments the speech signal segment are on the one side of the threshold.

28. (New) A device of claim 23, wherein said means for making a decision comprises:

means for determining whether the values relating to the voicing of substantially half of the sub-segments the speech signal segment are on the one side of the threshold.

29. (New) A method for determining the voicing of a speech signal segment, comprising the steps of: dividing a speech signal segment into sub-segments, determining a value relating to the voicing of respective speech signal subsegments, comparing said values with a predetermined threshold, and making a decision on the voicing of the speech segment based on the number of the values on one side of the threshold and with emphasis on at least one last sub-segment of the segment being used in the detection of unvoiced to voiced speech.

cl 30. (New) A method of claim 29, wherein said step of making a decision is based on whether the value relating to the voicing of the last sub-segment is on the one side of the threshold.

31. (New) A method of claim 29, wherein said step of making a decision is based on whether the values relating to the voicing of last K_r sub-segments are on the one side of the threshold.

32. (New) A method of claim 29, wherein said step of making a decision is based on whether the values relating to the voicing of substantially half of the sub-segments of the speech signal segment are on the one side of the threshold.

33. (New) A method of claim 29, wherein said value related to voicing of respective speech signal sub-segments comprises an autocorrelation value.

34. (New) A method of claim 33, wherein a pitch period is determined based on said autocorrelation value.

35. (New) A method of claim 29, wherein the determining the voicing of a speech signal segment comprises a voiced/unvoiced decision.

36. (New) A device for determining the voicing of a speech signal segment, comprising:

means for dividing a speech signal segment into subsegments;

means for determining a value relating to the voicing of respective speech signal sub-segments;

means for comparing said values with a predetermined threshold; and

means for making a decision on the voicing of the speech segment based on the number of the values falling on one side of the threshold and with emphasis on at least one last subsegment of the segment being used in the detection of unvoiced to voiced speech.

37. (New) A device of claim 36, wherein said means for making a decision comprises means for determining if the value of the last sub-segment is on the one side of the threshold.

38. (New) A device of claim 36, wherein said means for making decision comprises means for determining if the values of last K_n sub-segments are on the one side of the threshold.

39. (New) A device of claim 36, wherein said means for making a decision comprises means for determining whether the values relating to the voicing of substantially half of the sub-segments the speech signal segment are on the one side of the threshold.

40. (New) A device of claim 36, wherein the said means for determining a value relating to the voicing of respective speech signal sub-segments comprises means for determining the autocorrelation value.

41. (New) A device of claim 36, wherein said means for making a decision comprises:

means for determining whether the values relating to the voicing of substantially half of the sub-segments the speech signal segment are on the one side of the threshold.

42. (New) A device of claim 37, wherein said means for making a decision comprises:

means for determining whether the values relating to the voicing of substantially half of the sub-segments the speech signal segment are on the one side of the threshold.